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EXAMINER	
SHAFFER, ERIC T	

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/672,483	MCELROY ET AL.
	Examiner	Art Unit
	Eric T. Shaffer	3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,6,8-16,19,21,23-31,34,36 and 38-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,6,8-16,19,21,23-31,34,36 and 38-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This communication is in response to the amendments filed April 2, 2004.

Summary of Instant Office Action

2. Applicant's arguments, filed April 2, 2004, concerning claims 1 – 46 have been considered and are deemed unpersuasive.

Claims 2, 3, 5, 7, 17, 18, 20, 22, 32, 33, 35 and 37 have been cancelled by the applicant and claims 47 - 52 have been added by the applicant. The rejections under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) in the previous Office Action regarding claims 1, 4, 6, 8 - 16, 19, 21, 23 – 31, 34, 36, and 38 - 46 have been withdrawn and replaced by a new rejection under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 101

3. Claims 1, 4, 6, 8 – 16, 19, 21, 23 – 30 and 47 - 50 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

(1) whether the invention is within the technological arts; and

(2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e. abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to

pass muster, the recited process must somehow apply, invoke, use, or advance the technological arts.

In the present case, the method of proposing a knowledge policy does not specifically use technology to carry out any of the non-trivial claimed method steps. For example, the steps of claim 1 of developing a knowledge, embryology, politics, diversity, connectivity and practice may be performed manually or without the aid of any technology. Thus, claims 1, 4, 6, 8 – 16, 19, 21, 23 – 30 and 47 - 50 do not affect, effect, or are affected by technology, and thus do not recite statutory subject matter. Use of a computer, a computer operable medium, or some other technology device is required for said claims to be patentable.

The claims 1, 4, 6, 8 – 16, 19, 21, 23 – 30 and 47 - 50, do meet the second part of the two-prong test of producing useful, concrete and tangible result, the claimed invention. Use of the term enhancing denotes that a system currently exist to perform this function, yet the applicant has not revealed such a system. The applicant's proposed method does not result in a system that produces any tangible result as the method merely discusses proposing and evaluating various policies. In order to meet the standards of the two-pronged test, the applicant's invention must produce a tangible result such as a document, a list, or a step-by-step formal procedure that is usable by someone charged with making the invention.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 4, 6, 8, 10 – 16, 19, 21, 23, 25 – 30 and 47 - 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over the article "The Quality Imperative" by Ronald M. Fortuna from the book "Total Quality" published in 1990.

As per claims 1, 12, 16, 27 and 47 - 50, Fortuna teaches a human social system (page 17, "many world-class manufacturers") or an organization (page 19, "an organization") around one or more of the production, diffusion and application of organizational knowledge (page 17, "a universally applicable sequence for continuous improvement"), a method of managing one or more of the:

production (page 19, "top management creates a vision of a desired company situation roughly five years in the future. This vision incorporates specific improvements in the areas of quality, cost, and delivery"), wherein creation or creating a vision is production of a vision,

diffusion (page 19, "the strategy to attain the vision is set fourth in a series of annual improvement policies that top management " where "policy deployment helps top management to convey their message in a concerted way to all managers and encourages the participation of lower level managers in determining deploying goals"), wherein deployment of information or policy throughout an organization is diffusion,

application (page 19, "management translates at each level of management into specific, detailed actions and concrete goals"), wherein translation into goals and actions is an application of such knowledge comprising synchronizing knowledge policy,

said synchronizing comprising:

determining a preexisting knowledge embryology / politics policy for the social system (page 17, "Plan-Begin by studying an organization's current situation. Before any improvement plans are made, ensure that the current best known methods are documented and standardized"), wherein documenting is determining;

proposing a synchronized knowledge embryology / politics policy for the social system (pages 18-18, "Gather data to identify and define the problems and help formulate a plan. Only then can planning be initiated for the desired accomplishments over a given period of time, for what is going to be done to get there, and for how the effect of the actions planned will be systematically measured. The plan should include specific actions, changes, or tests that are the outgrowth of a systematic study of the probable cause of the problems or effects in question"), wherein planning is proposing;

practicing the proposed synchronized knowledge embryology / politics policy for the social system (page 18, "Do-Implement the plan. If possible, try it out on a small scale first."), wherein implementing is practicing;

evaluating the practice of the proposed knowledge embryology / politics policy for the social system compared with the preexisting knowledge politics policy for the social system (page 18, "Check-Evaluate the data collected during implementation to see if the measures

worked. Check the results to see if there is a good fit between the original goals and what was actually achieved"), wherein evaluation data is evaluating the practice of a policy;

refining if necessary the proposed synchronized knowledge embryology / politics policy for the social system in response to the evaluating (page 18, "Act-Depending on the results of the previous evaluation, take further actions...If unsuccessful, abandon the changes or run through the cycle again under revised conditions"), wherein revising is refining;

practicing any refined synchronized knowledge embryology / politics policy in the social system (page 18, "Act-Depending on the results of the previous evaluation, take further actions. If successful, adopt the changes. That is, institutionalize the measures taken by documenting the new standards, communicating them to all personnel in the process, and training people to the new standards. The new methods, procedures, and specifications then can be replicated in all areas with similar processes."), wherein adoption of changes is practicing a policy.

Fortuna does not specifically teach a social system having a tendency to self organize. A reason that it would be useful to have a social system or organization that is self organized is because such an organization would be more efficient than a non-self organized system that was created by random chance or out of chaos.

However, Fortuna does teach an organization, a corporation, and a world-class manufacturer, all of which are social systems that are organized. Since companies do not come into existence spontaneously, they must obviously be organized by there mere existence. Furthermore, Fortuna does teach the concepts of production, diffusion and application of knowledge that are used by the applicant to define self organization. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the

plan-do-check-act cycle process of the production, diffusion and application of knowledge used in continuous improvement to a self organized social system in order that self organized companies, manufacturers and corporations would be able to use the system. Since companies, manufacturers and corporations are self organized, they have expressed an interest in being organized and would be further interested in becoming more organized through a process of continuous improvement. Therefore, making such a system work for a self organized organization would make the system marketable to these companies, manufacturers and corporations as potential customers.

6. As per claims 4, 6, 19 and 21, Fortuna teaches a method further comprising:

determining conflicts between at least one of the preexisting knowledge embryology / diversity policy and the preexisting knowledge connectivity / politics policy and at least one of the proposed knowledge embryology policy (page 17, "gather data to identify and define the problems and to help formulate a plan"), wherein a problem is a conflict;

determining requirements to resolve said conflicts (page 17, "the plan should include specific actions, changes or tests that are the outgrowth of a systematic study of the probable cause of the problem"), where the plan is what is required to solve the problem or conflict.

As per claims 8 and 23, Fortuna teaches a method, as claimed in claim 48, and further comprising determining at least one characteristic of the innovation of the social system (page 4, "Defining Quality: 1. Conformance to specifications-Quality is defined by the relative absence of defects. 2. Meeting customer requirements-Quality is measured by the degree of customer satisfaction with a product's characteristics and features"), where quality is a characteristic of continuous improvement, which is innovation.

7. As per claims 10 and 25, Fortuna teaches a method wherein the one characteristic comprises innovation quality (page 24, "demand that key measures of quality are developed and given attention equal to the financial measures").

8. As per claims 11, 13, 26 and 28, Fortuna teaches refining if necessary the proposed knowledge embryology policy, the proposed knowledge politics policy, the proposed knowledge diversity policy and the proposed knowledge connectivity policy in response to said practicing the evaluated proposed knowledge embryology policy, twice evaluated proposed knowledge politics policy, proposed knowledge diversity policy and proposed knowledge connectivity policy together in the social system (page 18, "Act-Depending on the results of the previous evaluation, take further actions…If unsuccessful, abandon the changes or run through the cycle again under revised conditions"), wherein revising is refining.

9. As per claims 14 and 29, Fortuna teaches a method wherein said social system comprises an organization (page 19, "orchestrate continuous improvement throughout an organization").

10. As per claims 15 and 30, Fortuna teaches a method, as claimed in claim 14, wherein said organization comprises a business (page 3, "a bottom line issue that addresses the very roots of a business").

11. Claims 31, 34, 36, 38, 40, 44 – 46, 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over the article "The Quality Imperative" by Ronald M. Fortuna from the book "Total Quality" published in 1990 in view of Reddy (US 6,629,096).

12. As per claims 31, 51 and 52, Fortuna teaches a human social system (page 17, "many world-class manufacturers") or an organization (page 19, "an organization") around one or more of the production, diffusion and application of organizational knowledge (page 17, "a universally applicable sequence for continuous improvement"), a method of managing one or more of the:

production (page 19, "top management creates a vision of a desired company situation roughly five years in the future. This vision incorporates specific improvements in the areas of quality, cost, and delivery"), wherein creation or creating a vision is production of a vision,

diffusion (page 19, "the strategy to attain the vision is set fourth in a series of annual improvement policies that top management " where "policy deployment helps top management to convey their message in a concerted way to all managers and encourages the participation of lower level managers in determining deploying goals"), wherein deployment of information or policy throughout an organization is diffusion,

application (page 19, "management translates at each level of management into specific, detailed actions and concrete goals"), wherein translation into goals and actions is an application of such knowledge comprising synchronizing knowledge policy,

said synchronizing comprising:

determining a preexisting knowledge politics policy for the social system (page 17, "Plan-Begin by studying an organization's current situation. Before any improvement plans are made, ensure that the current best known methods are documented and standardized"), wherein documenting is determining;

proposing a synchronized knowledge politics policy for the social system (pages 18-18, "Gather data to identify and define the problems and help formulate a plan. Only then

can planning be initiated for the desired accomplishments over a given period of time, for what is going to be done to get there, and for how the effect of the actions planned will be systematically measured. The plan should include specific actions, changes, or tests that are the outgrowth of a systematic study of the probable cause of the problems or effects in question"), wherein planning is proposing;

practicing the proposed synchronized knowledge politics policy for the social system (page 18, "Do-Implement the plan. If possible, try it out on a small scale first."), wherein implementing is practicing;

evaluating the practice of the proposed knowledge politics policy for the social system compared with the preexisting knowledge politics policy for the social system (page 18, "Check-Evaluate the data collected during implementation to see if the measures worked. Check the results to see if there is a good fit between the original goals and what was actually achieved"), wherein evaluation data is evaluating the practice of a policy;

refining if necessary the proposed synchronized knowledge politics policy for the social system in response to the evaluating (page 18, "Act-Depending on the results of the previous evaluation, take further actions...If unsuccessful, abandon the changes or run through the cycle again under revised conditions"), wherein revising is refining;

to facilitate practicing any revised synchronized knowledge politics policy in the social system (page 18, "Act-Depending on the results of the previous evaluation, take further actions. If successful, adopt the changes. That is, institutionalize the measures taken by documenting the new standards, communicating them to all personnel in the process, and training people to the

new standards. The new methods, procedures, and specifications then can be replicated in all areas with similar processes."), wherein adoption of changes is practicing a policy.

Fortuna does not teach storing data using a data store or communicating over a network.

Reddy teaches storing data (column 5, lined 44 - 45, "data warehouse is coupled to mind flow management module and comprises a repository for data items") relating to one or more of said organizational knowledge and the at least one knowledge policy in the data store (column 6, line 33 -35, "these knowledge items generally represent those strategies, ideas, and solutions developed by a knowledge worker making business decisions"); and

communicating over the network to facilitate said synchronizing (column 5, lines 1-2, "the components of the system may be part of a local area network").

Both inventions are analogous art because they both perform a workflow process to organize strategies, policies, ideas and solutions to problems.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Fortuna knowledge policy invention with the database and network aspects of the Reddy invention to create a system that could store and process on a computer the knowledge policy data because computer systems can perform this type of work faster and with more accuracy than people alone, thereby saving time and money.

13. As per claims 34 and 36, Fortuna teaches a method determining conflicts between at least one of the preexisting knowledge embryology / diversity policy and the preexisting knowledge connectivity / politics policy and at least one of the proposed knowledge embryology policy (page 17, "gather data to identify and define the problems and to help formulate a plan"), wherein a problem is a conflict;

determining requirements to resolve said conflicts (page 17, "the plan should include specific actions, changes or tests that are the outgrowth of a systematic study of the probable cause of the problem"), where the plan is what is required to solve the problem or conflict.

14. As per claim 38, Fortuna teaches a method further comprising determining at least one characteristic of the innovation of the social system (page 4, "Defining Quality: 1. Conformance to specifications-Quality is defined by the relative absence of defects. 2. Meeting customer requirements-Quality is measured by the degree of customer satisfaction with a product's characteristics and features"), where quality is a characteristic of continuous improvement, which is innovation.

15. As per claims 40, Fortuna teaches a method wherein the one characteristic comprises innovation quality (page 24, "demand that key measures of quality are developed and given attention equal to the financial measures").

16. As per claim 44, Fortuna teaches a system for developing, communicating and implementing a knowledge policy for enabling continuous process improvement. Fortuna does not teach implementation of a computer or data processing. Reddy teaches a method, as claimed in claim 31, wherein said system comprises a data processor and wherein said method further comprises processing data relating to one or more of said organizational knowledge and knowledge policies with said data processor (column 12, lines 30 – 31, "process of module comprises any suitable combination of hardware and software in computer").

Both inventions are analogous art because they both perform a workflow process to organize strategies, policies, ideas and solutions to problems.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Fortuna knowledge policy invention with the computer and data processing aspects of the Reddy invention to create a system that could process on a computer the knowledge policy data because computer systems can perform this type of work faster and with more accuracy than people alone, thereby saving time and money.

17. As per claim 45, Fortuna teaches a method wherein said social system comprises an organization (page 19, "orchestrate continuous improvement throughout an organization").

As per claim 46, Fortuna teaches a method, as claimed in claim 14, wherein said organization comprises a business (page 3, "a bottom line issue that addresses the very roots of a business").

18. Claims 9, 24 and 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over the article "The Quality Imperative" by Ronald M. Fortuna from the book "Total Quality" published in 1990 in view of Reddy (US 6,629,096) and in further view of the book "Diffusion of Innovation" published in 1983.

19. As per claims 9, 24 and 39, Fortuna teaches an idea and knowledge management system for continuous quality improvement that uses the Plan-Do-Check-Act methodology. Fortuna also teaches a knowledge politics policy (Policy Development: Top management, middle management, first-line management", page 20, figure 3), wherein the top down structure is the type of knowledge politics defined by the applicant on page 24 of the specification. Fortuna does not teach a computer operable medium or an innovation rate.

Reddy teaches a computer operable network communication system and method for knowledge generation, storage and retrieval for the purpose of providing business analysis and support of the problem solving process. The system incorporates "strategies, ideas and solutions developed by a knowledge worker" (column 6, lines 33 -35) in the process of solving day-to-day business problems. Reddy teaches documenting the mindflow thought process of solving a problem in order to create an audit trail of documents that others can read and improve upon. Both inventions are analogous art because they both perform a workflow process to organize strategies, policies, ideas and solutions to problems.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Fortuna knowledge policy invention with the database and network aspects of the Reddy invention to create a system that could store and process on a computer the knowledge policy data because computer systems can perform this type of work faster and with more accuracy than people alone, thereby saving time and money.

Neither the Fortuna or the Reddy invention teaches an innovation rate.

"Diffusion of Innovation" teaches a plurality of methods for measuring the success, quality, and rate of an innovative system and the people responsible for managing an innovative organization. The book also teaches a "rate of awareness knowledge" and a "rate of adoption" (page 204, figure 5.5). All of the inventions are analogous art because they teach methods or processes to organize strategies, policies, ideas, innovations and/or solutions to problems.

It would have further been obvious to one of ordinary skill in the art at the time the invention was made to combine the computer operable processor and memory elements of the Fortuna and Reddy combination with the knowledge management the rate of innovation taught in

the "Diffusions of Innovation" textbook because such a system would allow organization desiring to implement innovative thinking policies to see how fast their organizations are progressing with respect to other organizations that have been innovative for a longer period of time.

20. Claims 41 - 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over the article "The Quality Imperative" by Ronald M. Fortuna from the book "Total Quality" published in 1990 in view of Reddy (US 6,629,096) and in further view of the Book "The Innovator's Handbook" published in 1989.

21. As per claims 41 - 43, Fortuna teaches an idea and knowledge management system for continuous quality improvement that uses the Plan-Do-Check-Act methodology. Fortuna also teaches a knowledge politics policy (Policy Development: Top management, middle management, first-line management", page 20, figure 3), wherein the top down structure is the type of knowledge politics defined by the applicant on page 24 of the specification. It does not teach a computer operable medium.

Reddy teaches a computer operable network communication system and method for knowledge generation, storage and retrieval for the purpose of providing business analysis and support of the problem solving process. The system incorporates "strategies, ideas and solutions developed by a knowledge worker" (column 6, lines 33 -35) in the process of solving day-to-day business problems. Reddy teaches documenting the mindflow thought process of solving a problem in order to create an audit trail of documents that others can read and improve upon. Both inventions are analogous art because they both perform a workflow process to organize strategies, policies, ideas and solutions to problems.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Fortuna knowledge policy invention with the database and network aspects of the Reddy invention to create a system that could store and process on a computer the knowledge policy data because computer systems can perform this type of work faster and with more accuracy than people alone, thereby saving time and money.

Neither the Fortuna or the Ready invention teaches an embryology, diversity or connectivity.

"The Innovator's Handbook" teaches a knowledge embryology policy for the social system ("some systems may be embryonic solutions which need development or refinement to overcome drawbacks and make them feasible", page 42); a knowledge diversity policy for the social system ("It introduces an alternative assumption: that all ideas are potentially valuable to the solution of the problem", page 35), wherein placing value on all ideas is diversity as defined by the applicant on page 25 of the specification; a knowledge connectivity policy for the social system ("because communication pervades nearly everything we do, even small improvements in the effectiveness of our communication are likely to have disproportionately large benefits", page 103), wherein placing value on communication is connectivity policy as defined by the applicant on page 26 of the specification. All three inventions are analogous art because they each organize strategies, policies, ideas, innovations and/or solutions to problems.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine all three inventions in order to develop a system that would provide a greater degree of organization to the data involved in generating ideas and to better enable the dissemination of said ideas throughout an organization by using a communications network. Since

innovation is based on generating a large number of ideas and having a multitude of people review and improve on such ideas, a communications network that facilitates this traffic in ideas would be an obvious improvement on the combination of the Fortuna and Reddy invention that would be offered by incorporating the "Innovator's Handbook" methodology.

Response to Amendments

22. Applicant's arguments filed have been fully considered, but the same are not persuasive.

a) Applicant argues that the rejection under 35 U.S.C. 112 is overcome by the steps listed in figures 2-5 and by providing more definitions of Embryology of Knowledge, Synchronizing Embryology of Knowledge, Politics of Knowledge, Synchronizing Politics of Knowledge and Connectivity of Knowledge. However, the descriptions do not explain how one of ordinary means would produce, diffuse and apply the knowledge policies claimed by the applicant. The figures merely state that a knowledge policy is proposed, but does not reveal the steps involved in proposing. Similarly, the steps involved in the determination of conflicts, determination of requirements to resolve conflicts, practice of policies and the criteria for evaluation are also not given in sufficient detail to allow one of ordinary skill in the art to construct the invention. Finally, in order to receive a patent, the applicant must place these steps in the claim language of the application, as patentable weight is given to the claims and not to the specifications and/or figures.

b) Applicant argues that the USC 101 rejection is invalid because the invention is directed at a method and not a device. However, in order to receive a patent, the applicant must incorporate technology as a component of the method. Applicant argues that the two-pronged test is not

valid as per the MPEP due to the State Street Bank case. Examiner submits that the phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts." See In re Musgrave, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts."

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature," "natural phenomena," and "abstract ideas." See Diamond v. Diehr, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See State Street Bank & Trust Co. v. Signature Financial Group, Inc. 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998). This addresses the second test under 35 U.S.C § 101 of whether or not an invention is eligible for a patent. The Manual of Patent Examining Procedure reiterates this point. More specifically, MPEP § 2106(II)(A) states, "The claimed invention as a whole must accomplish z practical application. That is, it must produce a 'useful, concrete and tangible result.' State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02." Furthermore, "Only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101." (MPEP § 2106(1 I)(A)).

This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See In re

Toma, 197 USPQ (BNA) 852 (CCPA 1978). In Toma, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to Gottschalk v. Benson, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts." The court developed a "technological arts" analysis:

> The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter ... is statutory, not on whether the product of the claimed subject matter ... is statutory, not on whether the prior art which the claimed subject matter purports to replace ... is statutory, and not on whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. In re Toma at 857.

In Toma, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

The decision in State Street Bank & Trust Co. v. Signature Financial Group, Inc. never addressed this prong of the test. In State Street Bank & Trust Co., the court found that the "mathematical exception" using the FreemanWalter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result." See State Street Bank & Trust Co. at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on

novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See State Street Bank & Trust Co. at 1377. Both of these analyses go towards whether the claimed invention is non-statutory because of the presence of an abstract idea. State Street never addressed the first part of the analysis, i.e., the "technological arts" test established in Toma because the invention in State Street (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) **was already determined to be within the technological arts** under the Toma test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences in affirming a §101 rejection finding the claimed invention to be non-statutory for failing the technological arts test. See Ex parte Bowman, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

What is indeed important to note in the Bowman decision is that the Board acknowledged the dichotomy of the analysis of the claims under 35 U.S.C. § 101, thereby emphasizing the fact that not only must the claimed invention produce a "useful, concrete and tangible result," but that it must also be limited to the technological arts in order to be deemed statutory under the guidelines of 35 U.S.C. § 101. The Board very explicitly set forth this point:

> [1] We agree with the examiner. Appellant has carefully avoided tying the disclosed and claimed invention to any technological art or environment. As noted by the examiner, the disclosed and claimed invention is directed to nothing more than a human making mental computations and manually plotting the results on a paper chart [answer, page 5]. The Examination Guidelines for Computer-Related Inventions are not dispositive of this case because there is absolutely no indication on this record that the invention is connected to a computer in any manner.

> Despite the express language of 35 U.S.C. §101, several judicially created exceptions have been excluded from subject matter covered by Section 101. These exceptions include laws of nature, natural phenomenon, and abstract ideas. See Diamond v. Diehr, 450 U.S. 175, 185, 209 USPQ 1, 7(1981). We interpret the examiner's rejection as finding that the claimed invention before us is nothing more than an abstract idea because it is not tied to any technological art or environment. Appellant's argument is that the physical (even manual) creation of a chart and the plotting of a point on this chart places the invention within the technological arts.
>
> The phrase "technological arts" has been created to offer another view of the term "useful arts." The Constitution of the United States authorizes and empowers the government to issue patents only for inventions which promote the progress [of science and] the useful arts. We find that the invention before us, as disclosed and claimed, does not promote the progress of science and the useful arts, and does not fall within the definition of technological arts. The abstract idea which forms the heart of the invention
> before us does not become a technological art merely by the recitation in the claim of "transforming physical media into a chart" [sic, drawing or creating a chart] and "physically plotting a point on said chart."
>
> In summary, we find that the invention before us is nothing more than an abstract idea which is not tied to any technological art, environment, or machine, and is not a useful art as contemplated by the Constitution of the United States. The physical aspects of claim 1, which are disclosed to be nothing more than a human manually drawing a chart and plotting points on this chart, do not automatically bring the claimed invention within the technological arts. For all these reasons just discussed, we sustain the examiner's rejection of the appealed claims under 35 U.S.C. §101. See Ex parte Bowman, 61 USPQ2d (BNA) 1669, 1671 (BdPatApp&Int 2001)

Similarly, in the present application, claims 1, 4, 6, 8 – 16, 19, 21, 23 – 30 and 47 - 50 are deemed to be non-statutory because they are not limited to the technological arts; all recited steps could be performed manually by a human, thereby reinforcing the fact that Appellant's invention fails to "promote the progress of science and useful arts," as intended by the United States Constitution under Art. I, §8, cl. 8 regarding patent protection.

In conclusion, the Examiner submits that Appellant's claims do not meet the technological arts requirement under 35 U.S.C. 101, as articulated in *Musgrave* and *Toma*.

Conclusion

23. Applicant's amendment necessitates the new ground(s) of rejection presented in this Office Action. Accordingly, THIS ACTION IS MADE FINAL. See MPEM 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 1.136(a). The prior art made record of and not relied upon is considered pertinent to applicant's disclosure.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of final action.

24. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric Shaffer whose telephone number is (703) 305-5283. The Examiner can normally be reached on Monday-Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax number for the organization is (703) 305-0040/308-6306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Receptionist whose telephone number is (703) 305-3900.

Eric Shaffer

July 23, 2004

Susanna Diaz

SUSANNA M. DIAZ
PRIMARY EXAMINER
A.U. 3623